

Case 3280***Melitaea nycteis* Doubleday, 1847 (currently *Chlosyne nycteis*; Insecta, Lepidoptera): proposed conservation of the specific name**

John V. Calhoun

977 Wicks Drive, Palm Harbor, Florida 34684, U.S.A.

(e-mail: bretcall@verizon.net)

Lee D. Miller and Jacqueline Y. Miller

McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, P.O. Box 112710, Gainesville, Florida 32611, U.S.A. (e-mail: jmliller@flmnh.ufl.edu)

Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *Melitaea nycteis* Doubleday, 1847 for a widespread North American species of butterfly (family NYMPHALIDAE) by suppression of the problematic name *M. ismeria* Boisduval & Le Conte, 1835.

Keywords. Nomenclature; taxonomy; Lepidoptera; NYMPHALIDAE; *Melitaea*; *Chlosyne nycteis*; *Chlosyne gorgone*; *Chlosyne ismeria*; butterflies.

1. Boisduval & Le Conte (1835, p. 168, pl. 46) described and figured *Melitaea ismeria* from 'la Caroline et la Géorgie' based on a drawing by John Abbot. There is no extant type material and the original written description was too vague to determine the intended species with any certainty. Due to the poor quality of the engraved plate that accompanied the original description, the true identity of *M. ismeria* remained enigmatic.

2. Doubleday (1847, pl. 23, fig. 3) named *Melitaea nycteis* (currently *Chlosyne nycteis*) in association with an illustration by W.C. Hewitson. No written description was provided, but text issued separately by Doubleday (1848, p. 181) attributed the species to the 'Middle States'. The holotype is deposited in the Natural History Museum, London (labelled: 'B.M. Type no. Rh8433, *Melitaea nycteis*, ♀D. & H.').

3. Boisduval (1869, p. 53) characterised *Melitaea nycteis* as similar in appearance to *M. ismeria*, but he did not consider these taxa to be conspecific.

4. Scudder (1872, p. 85) identified a John Abbot drawing in the British Museum as '*Ismeria* (carlota Reek. [sic.])'. *Eresia carlota* was described in 1866 by Reakirt (p. 141). Since 1955 (Brown et al., p. 82), *carlota* has been treated as a subspecies of *Dryas gorgone* (currently *Chlosyne gorgone*), which was named by Hübner (1810, pl. [41], figs. 1–2) as *Dryas reticulata* Gorgone without any textual description or reference to his published plate. The origin of Hübner's figured specimens is unknown, but Miller & Brown (1981, p. 155) speculated that they came from John Abbot and the type locality is probably coastal Georgia. Since Scudder (1872), most authors have tentatively treated *M. ismeria* as a synonym of *D. gorgone*.

5. Brown (1974, p. 2) concluded that the Abbot drawing examined by Scudder (1872) did not directly serve as the model for the published plate of *Melitaea ismeria*. Due to a lack of supporting evidence, he was unable to determine the intended species and proposed (p. 10) that nomenclatural stability would perhaps best be served if *M. ismeria* were considered *nomen incognitum*.

6. Gatrell (1998, p. 1) argued that *Melitaea ismeria* was synonymous with *M. nycteis*. He collected three male *M. nycteis* on 20 August 1989 in Burke County, Georgia, and designated (p. 5) one of these specimens as the neotype of *Melitaea ismeria* Boisduval & Le Conte (labelled: 'Neotype, *Melitaea ismeria* Boisduval & LeConte, Det. R.R. Gatrell' and deposited in the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, Gainesville, Florida). Because *M. ismeria*, 1835 was described 12 years prior to *M. nycteis*, 1847, Gatrell (1998, p. 5) proposed the priority replacement of *nycteis*. In addition to the above, Gatrell designated a neotype for *Dryas reticulata gorgone*. Gatrell collected this neotype specimen on 27 April 1993 in Burke County, Georgia (labelled: 'Neotype ♂, *Dryas reticulata gorgone*' and deposited in the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, Gainesville, Florida).

7. Kons (2000, p. 505) disagreed with Gatrell's (1998) claim that *Melitaea ismeria* and *M. nycteis* were synonymous and hesitantly suggested that *M. ismeria* could be synonymous with *Phyciodes harrisii* Scudder, 1864 (currently *Chlosyne harrisii*). Higgins (1960, p. 440) had previously proposed this synonymy, but ultimately treated *M. ismeria* as a *nomen dubium*.

8. Calhoun (2003, p. 208) determined that the Abbot drawing mentioned by Scudder (1872) (now in the Natural History Museum, London) represented *Dryas gorgone*. Through further investigation, Calhoun (2003, p. 211) discovered the original Abbot drawing that was used for the published plate of *M. ismeria* (in the Thomas Cooper Library, University of South Carolina, Columbia). Abbot often duplicated his own artwork, but his attention to detail varied. It was determined that the figures in the original drawing in South Carolina are copies of those in Abbot's earlier drawing of *D. gorgone* in the Natural History Museum, London. Two exact duplicates of Abbot's earlier drawing of *D. gorgone* were also found (at the Houghton Library, Harvard University, and the Alexander Turnbull Library, Wellington, New Zealand). Yet another duplicate of this drawing was recently located (at the Hargrett Rare Books and Manuscript Library, University of Georgia). The written description of *M. ismeria* corresponded to the figures in Abbot's original drawing in South Carolina, thus Calhoun (2003, p. 214) concluded that the actual species was *D. gorgone*.

9. Gatrell (2003, p. 8) countered that the original French description of *Melitaea ismeria* was indicative of a specimen of *M. nycteis*. However, Calhoun (2004, p. 161) claimed that Gatrell's translation and interpretation of the description were erroneous. Calhoun (2004, p. 162) further proposed that Abbot's drawings of *Dryas gorgone* probably portray the subspecies tentatively recognized as *D. g. carlota*, which is consistent with an old Georgia specimen of *D. gorgone* (at the Natural History Museum, London) that probably corresponds to a specimen that Edward Doubleday identified as *M. ismeria* from John Abbot (Calhoun, 2003, p. 114).

10. Calhoun (2004, p. 163) subsequently discovered that James H. McDunnough examined the surviving Boisduval collection in 1913 and appears to have selected a

specimen to serve as the 'type' of *M. ismeria*. Calhoun was unable to locate this missing specimen, ostensibly labelled by Boisduval as *M. ismeria*, but Barnes & McDunnough (1917, p. 10) published a checklist of Lepidoptera in which *M. ismeria* was treated as a synonym of *D. gorgone*.

11. Calhoun (in press) found an even earlier and more detailed drawing of *Dryas gorgone* by Abbot (at the Natural History Museum, London). The figures are consistent with those in Abbot's four other duplicate renderings of *D. gorgone*, including the original drawing for *Melitaea ismeria*. Calhoun has personally examined nearly 1000 original Lepidoptera drawings by John Abbot and none has been found to represent *M. nycteis*. In addition, no specimens of *M. nycteis* are known to exist that can be attributed to Abbot.

12. *Melitaea nycteis* Doubleday has been accepted as a valid name for more than 150 years and commonly associated with actual specimens. Both before and since Gatrell (1998), prevailing usage of *Melitaea nycteis* has remained consistent in nomenclatural, taxonomic, biological and popular literature. Examples include Morris (1860, p. 8), Dyar (1902, p. 20), Forbes (1945, p. 188), Higgins (1960, p. 44), dos Passos (1969, p. 117), Miller & Brown (1981, p. 155), Kons (2000, p. 510), Wahlberg & Zimmerman (2000, p. 350), Wahlberg (2001, p. 524), Ross (2001, p. 101), Opler & Warren (2002, p. 32) and Brock & Kaufman (2003, p. 184). *M. nycteis* is a widespread North American species.

13. In view of the historical uncertainty regarding the identity of *M. ismeria*, and evidence that this taxon is synonymous with *Dryas gorgone*, the proposed priority replacement of *M. nycteis* by *M. ismeria* would not promote nomenclatural stability. We therefore propose the suppression of *M. ismeria* to avoid any further confusion.

14. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the name *ismeria* Boisduval & Le Conte, 1835, as published in the binomen *Melitaea ismeria*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *gorgone* Hübner, 1810, as published in the trinomen *Dryas reticulata gorgone* and as defined by the neotype designated by Gatrell (1998);
 - (b) *nycteis* Doubleday, 1847, as published in the binomen *Melitaea nycteis* and as defined by the holotype in the Natural History Museum, London;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *ismeria* Boisduval & Le Conte, 1835, as published in the binomen *Melitaea ismeria* and as suppressed in (1) above.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).